

Appln. No.: 10/634,607

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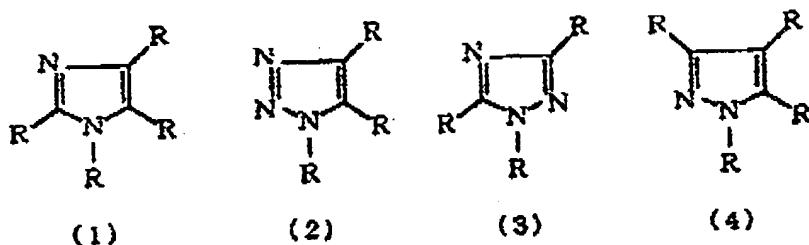
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AMENDMENTS TO THE CLAIMS:

1. (Previously Presented) An electrode for an electrochemical cell, comprising:
an electrode material including an active material having a proton-conducting compound and a nitrogen-containing heterocyclic compound;
wherein the nitrogen-containing heterocyclic compound is one or more compounds selected from the group consisting of imidazole, triazole, pyrazole, and their derivatives.
2. (Original) The cell electrode as claimed in Claim 1 wherein the electrode material comprises a nitrogen-containing heterocyclic compound and a polymer having a unit containing a nitrogen-containing heterocyclic moiety.
3. (Original) The cell electrode as claimed in Claim 1, used for an electrochemical cell wherein only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge.
4. (Previously Presented) The cell electrode as claimed in Claim 1, wherein the nitrogen-containing heterocyclic compound further comprises one or both of benzimidazole and its derivatives.
5. (Previously Presented) The cell electrode as claimed in Claim 1, wherein the nitrogen-containing heterocyclic compound is one or more compounds selected from the group consisting of imidazole or its derivative represented by formula (1), triazole or its

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derivative represented by formula (2) or (3), and pyrazole or its derivative represented by formula (4):



wherein R independently represent hydrogen, alkyl having 1 to 4 carbon atoms, amino, carboxyl, nitro, phenyl, vinyl, halogen, acyl, cyano, trifluoromethyl, alkylsulfonyl or trifluoromethylthio.

6-7. (Cancelled)

8. (Original) The cell electrode as claimed in Claim 1 comprising 1 to 80 parts by weight of the nitrogen-containing heterocyclic compound to 100 parts by weight of the active material.

9. (Cancelled)

10. (Original) The cell electrode as claimed in Claim 2 comprising 1 to 80 parts by weight of the nitrogen-containing heterocyclic compound and the polymer to 100 parts by weight of the active material.

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11. (Original) An electrochemical cell wherein at least one of the electrodes is the electrode as claimed in Claim 1 and both electrodes comprise a proton-conducting compound as an active material.

12. (Original) An electrochemical cell as claimed in Claim 11 comprising an electrolyte containing a proton source wherein only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge.

13. (Original) A secondary battery comprising the electrochemical cell as claimed in Claim 11.

14-16. (Canceled)

17. (Previously Presented) An electrochemical cell wherein at least one of the electrodes is the electrode as claimed in Claim 4 and both electrodes comprise a proton-conducting compound as an active material.

18. (Previously Presented) The electrochemical cell as claimed in claim 17 comprising an electrolyte containing a proton source wherein only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge.

19. (Previously Presented) A secondary battery comprising an electrochemical cell:

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wherein at least two of the electrodes of the electrochemical cell comprise an electrode material including an active material having a proton-conducting compound;

wherein at least one of the electrodes of the electrochemical cell comprises an electrode material including a nitrogen-containing heterocyclic compound; and

wherein the nitrogen-containing heterocyclic compound comprises one or more compounds selected from the group consisting of imidazole, triazole, pyrazole, and their derivatives.

20. (Previously Presented) An electrochemical cell wherein at least one of the electrodes is the electrode as claimed in Claim 5 and both electrodes comprise a proton-conducting compound as an active material.

21. (Previously Presented) The electrochemical cell as claimed in Claim 20 comprising an electrolyte containing a proton source wherein only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge.

22. (Previously Presented) The electrochemical cell as claimed in Claim 20, wherein the electrochemical cell is arranged in a secondary battery.